

SEQUENCE LISTING

<110> Friddle, Carl Johan
 Hilbun, Erin
 Turner, C. Alexander Jr.

<120> Novel Human Ion Channel Protein and Polynucleotides Encoding the Same

<130> LEX-0284-USA

<150> US 60/257,932

<151> 2000-12-20

<160> 3

<170> FastSEQ for Windows Version 4.0

<210> 1

<211> 1278

<212> DNA

<213> homo sapiens

<400> 1

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| atgacccatcg | ggcgacggg | ggcgccatcg | gtgggtgctga | acgtggggcg | cgcccggtat | 60 |
| tcgcgttccc | ggggatgtcg | gaaggacttc | ccgtcgcc | gtgtgacccg | gtgcacggc | 120 |
| tgccgcgtcg | ggggatgtcg | gtcgagggtg | tgccgacact | acgacccgca | ggcccaacgag | 180 |
| tacttcttcg | acccggactc | ggaggccctc | ggcttcatcc | tgtctacgt | ggcgccac | 240 |
| ggccaaatgc | gttccgcgc | ggggatgtcg | ggatctctct | tctacaacgt | gtatgtatca | 300 |
| tggggccctgg | ggggccgc | cttcggatgc | tgtccggcage | ggccgcctcg | cgaccgcatg | 360 |
| tccgacaccc | acacccatca | ctcgccgcac | gagccggcg | tgtccggcgc | cgacggggcg | 420 |
| cgcccccggc | ggggccgggc | ggatccatcc | ggccgcgtgc | tgagacgcat | ggccgcgacc | 480 |
| tccgaggagc | ccacgtcg | gttccgcgc | cagatccctgg | ctacgtgtc | gttccgttgc | 540 |
| gtgtatcggt | ccatgggtgt | gtgtgcgc | agcacgttgc | ccgactggcg | caacgcagcc | 600 |
| gcccgcaccc | gcaacgttgc | tgaccggagc | aggataatgg | aagatatactg | catacggtgg | 660 |
| ttcaactgcgg | aggatcatgt | gagggttcatt | gttccaaaaa | acaatgtgtc | gtttgtcaag | 720 |
| agacccctgt | acatcattga | tttactggca | atcacggcgt | attacatctc | tgtgttgatg | 780 |
| acatgttgc | caggcggagc | ctctcaactc | caagggtgc | gagtcaccc | gagggtactt | 840 |
| agaatgtatg | ggattttttg | gtgttataag | cttgcggcgtc | acttcattgg | tcttcagaca | 900 |
| cttcgggttgc | ctctcaaaac | ttgttacccga | gagatggta | tgttacttgc | cttcatttg | 960 |
| gtttgtgttg | caatctttag | tgacttcttc | gacccatgtc | aaatctggct | ggacctggaa | 1020 |
| acatccaaac | aggatcttac | caggatccat | ggtgtgtgt | ttttttttat | tatccatgt | 1080 |
| actacatgtt | gtatggaga | tatgtatcc | atcacagtgc | cttggagaat | tcttggagga | 1140 |
| gtttgtgttg | tcagtggat | tttttatttg | gttattcc | tcaattttat | ctaccatagc | 1200 |
| ttttgtcgat | gttattcatgc | gttcaagttt | agatctgtca | ggtatagtag | gagccctctcc | 1260 |
| actgaattcc | tgaattaa | | | | | 1278 |

<210> 2

<211> 425

<212> PRT

<213> homo sapiens

| | | | | | | | | | | | | | | | | |
|---------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| <400> 2 | Met | Thr | Phe | Gly | Arg | Ser | Gly | Ala | Ala | Ser | Val | Val | Leu | Asn | Val | Gly |
| 1 | 5 | | | | | | | 10 | | | | | 15 | | | |
| Gly | Ala | Arg | Tyr | Ser | Leu | Ser | Arg | Glu | Leu | Leu | Lys | Asp | Phe | Pro | Leu | |

| | | | |
|---|-----|-----|-----|
| 20 | 25 | 30 | |
| Arg Arg Val Ser Arg Leu His Gly Cys Arg Ser Glu Arg Asp Val Leu | | | |
| 35 | 40 | 45 | |
| Glu Val Cys Asp Asp Tyr Asp Arg Glu Arg Asn Glu Tyr Phe Phe Asp | | | |
| 50 | 55 | 60 | |
| Arg His Ser Glu Ala Phe Gly Phe Ile Leu Leu Tyr Val Arg Gly His | | | |
| 65 | 70 | 75 | 80 |
| Gly Lys Leu Arg Phe Ala Pro Arg Met Cys Glu Leu Ser Phe Tyr Asn | | | |
| 85 | 90 | 95 | |
| Glu Met Ile Tyr Trp Gly Leu Glu Gly Ala His Leu Glu Tyr Cys Cys | | | |
| 100 | 105 | 110 | |
| Gln Arg Arg Leu Asp Asp Arg Met Ser Asp Thr Tyr Thr Phe Tyr Ser | | | |
| 115 | 120 | 125 | |
| Ala Asp Glu Pro Gly Val Leu Gly Arg Asp Glu Ala Arg Pro Gly Gly | | | |
| 130 | 135 | 140 | |
| Ala Glu Ala Ala Pro Ser Arg Arg Trp Leu Glu Arg Met Arg Arg Thr | | | |
| 145 | 150 | 155 | 160 |
| Phe Glu Glu Pro Thr Ser Ser Leu Ala Ala Gln Ile Leu Ala Ser Val | | | |
| 165 | 170 | 175 | |
| Ser Val Val Phe Val Ile Val Ser Met Val Val Leu Cys Ala Ser Thr | | | |
| 180 | 185 | 190 | |
| Leu Pro Asp Trp Arg Asn Ala Ala Ala Asp Asn Arg Ser Leu Asp Asp | | | |
| 195 | 200 | 205 | |
| Arg Ser Arg Ile Ile Glu Ala Ile Cys Ile Gly Trp Phe Thr Ala Glu | | | |
| 210 | 215 | 220 | |
| Cys Ile Val Arg Phe Ile Val Ser Lys Asn Lys Cys Glu Phe Val Lys | | | |
| 225 | 230 | 235 | 240 |
| Arg Pro Leu Asn Ile Ile Asp Leu Leu Ala Ile Thr Pro Tyr Tyr Ile | | | |
| 245 | 250 | 255 | |
| Ser Val Leu Met Thr Val Phe Thr Gly Glu Asn Ser Gln Leu Gln Arg | | | |
| 260 | 265 | 270 | |
| Ala Gly Val Thr Leu Arg Val Leu Arg Met Met Arg Ile Phe Trp Val | | | |
| 275 | 280 | 285 | |
| Ile Lys Leu Ala Arg His Phe Ile Gly Leu Gln Thr Leu Gly Leu Thr | | | |
| 290 | 295 | 300 | |
| Leu Lys Arg Cys Tyr Arg Glu Met Val Met Leu Leu Val Phe Ile Cys | | | |
| 305 | 310 | 315 | 320 |
| Val Ala Met Ala Ile Phe Ser Ala Leu Ser Gln Leu Leu Glu His Gly | | | |
| 325 | 330 | 335 | |
| Leu Asp Leu Glu Thr Ser Asn Lys Asp Phe Thr Ser Ile Pro Ala Ala | | | |
| 340 | 345 | 350 | |
| Cys Trp Trp Val Ile Ile Ser Met Thr Thr Val Gly Tyr Gly Asp Met | | | |
| 355 | 360 | 365 | |
| Tyr Pro Ile Thr Val Pro Gly Arg Ile Leu Gly Gly Val Cys Val Val | | | |
| 370 | 375 | 380 | |
| Ser Gly Ile Val Leu Leu Ala Leu Pro Ile Thr Phe Ile Tyr His Ser | | | |
| 385 | 390 | 395 | 400 |
| Phe Val Gln Cys Tyr His Glu Leu Lys Phe Arg Ser Ala Arg Tyr Ser | | | |
| 405 | 410 | 415 | |
| Arg Ser Leu Ser Thr Glu Phe Leu Asn | | | |
| 420 | 425 | | |

<210> 3

<211> 1844

<212> DNA

<213> homo sapiens

<400> 3

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| cccgccgcgt | ccatccggcg | cccgacggcc | tcagggggtc | ggcccccggg | cttgggagag | 120 |
| ggcaccggcg | cctcggtgtg | cgagacccctc | gggcgcgagg | gtcggccggc | cgacacacgc | 180 |
| cgcggttccca | ggcggtgggg | ctcagcgctg | ggccggcgga | ggactccccc | gcaccccgca | 240 |
| ggtaccggcg | ggccggaggcg | cgctactact | cagcggccgga | gatatacgag | cccaaggacc | 300 |
| cccgccgcag | cgaggaggcg | gagcggagcc | ccgaggggac | gggggccccg | acggcgcgct | 360 |
| cccccgtcag | ccacggggcg | gaggcccccgg | ctggggcgct | tggggtgggg | ggctgcacgc | 420 |
| ggggcctcg | ggccaaagtgc | cccccggcg | ccacccatga | ccttcggccg | cacggggcg | 480 |
| gcctcggtgg | tgctgaacgt | gggcggccgc | cggttattcgc | tgccccggga | getgtgaag | 540 |
| gacttcccgcc | tgcgcggcg | gagccggcg | cacggctgc | gtctcgacgc | cgacgtgc | 600 |
| gagggtgtcg | acgactacga | ccgcgagcgc | aacggactact | tettccacccg | gacactcgag | 660 |
| gccttcggct | tatccgtgt | ctacgtgcgc | ggcccaeggca | agetcgcccgt | cgccggcgcc | 720 |
| atgtgcgagc | tctccctcta | caacggatgc | atctactcg | ggctgggggg | cgccacccctc | 780 |
| gagtaactgc | ggccagcccg | cctcgacgac | cgcatgtcc | aaacactacat | cttctactcg | 840 |
| ggcgacgagc | ggggcggtcg | ggccggcgac | gaggcggcgc | ccgggggggc | cgagggggct | 900 |
| ccctccggcc | gtctgggtgg | ggccatgcgg | cgacccatcg | ggagggccac | gtctcgctcg | 960 |
| ggccgcgcage | tcttgcgttag | cggtgcgttg | gtgttcgttg | tgtgtccat | gttgggtgtcg | 1020 |
| tgcgccagea | cttgcgcga | ctggcgeaac | gacggcgccg | acaacccgag | ccttggatgac | 1080 |
| cggagcagga | taatttgcgg | tatccgtata | ggttttgttc | ctgcgcgatgt | catctgtgagg | 1140 |
| ttcatgtgtt | ccaaaaaaca | gttgtgatgtt | gtcaagagac | ccctggacat | catttgtat | 1200 |
| ctggcaatca | cgccgttata | catctctgt | ttgtatgacag | tgtttacagg | cgagaactct | 1260 |
| caactccaga | gggtctggat | cacccggagg | gtacttagaa | tgtatggat | tttttgggtg | 1320 |
| attaaatcttg | cccgtaactt | catgtgttct | cagacactcg | gttttgcactt | caaaacgttgc | 1380 |
| taccgagaga | ttgttatgtt | acttgttctt | atttgttgc | ccatggcaat | ctttatgtca | 1440 |
| ctttctcagc | tttttgcata | ttggctggac | ctggaaacat | ccaaacaagg | cttaccacgc | 1500 |
| attctctgt | ctctgtgtgt | gtgttattatc | tctatgacta | cagtgtgc | tggagatat | 1560 |
| tatccatata | caagtgcctgg | aagaatttt | ggaggagttt | gtgttgcag | tggaaattgtt | 1620 |
| ctatggcat | ttatccatcac | ttttatctac | catacgcttgc | tgcatgtgtt | tcatgagctc | 1680 |
| aagttagat | ctgtctatgtt | ttttatgttgc | ttttatgttgc | ttttatgttgc | ttttatgttgc | 1740 |
| gcaaatcaat | tcttgcatac | acttcataga | aagactttga | tgtgtttca | tatttatgtt | 1800 |
| ttttttgtcg | gttgagact | gcaatgttgc | ttttatgttgc | ttttatgttgc | ttttatgttgc | 1844 |